

REMARKS

The Office Action mailed February 3, 2004 has been received and the Examiner's comments carefully reviewed. Claims 1 and 8 have been amended. Claims 15 and 16 have been added. No new subject matter has been added. Claims 1-16 are currently pending. Applicants respectfully submit that the pending claims are in condition for allowance.

The Examiner indicated that the Information Disclosure Statement of August 28, 2003 has been considered. Only sheet 1 of 2 of the associated 1449 Form has been received. Applicants ask that the Examiner kindly return a copy of the completed sheet 2 of the 1449 Form with the next communication.

Claim Objections

The Examiner objected to claim 1 stating that the limitations "spaced apart" and "extending generally" are vague and indefinite. Applicants traverse this objection, but have amended claim 1 as suggested by the Examiner to advance this application to allowance. Applicants respectfully request withdrawal of the objection to claim 1.

The Examiner also objected to claim 2 stating that the plural "surfaces" have not been previously defined. Applicants note that claim 1 recites that the insertion structure includes arms, "each of the arms including" "an engagement surface." Claim 2 recites that there are three arms; and according to claim 1, each of the three arms includes an engagement surface. Applicants respectfully submit that the plural engagement surfaces have been previously defined. Applicants therefore respectfully request withdrawal of the objection to claim 2.

The Examiner further objected to claim 4 and 9 stating that the limitation "circumscribes" or "circumscribing a majority of the terminal body" is vague and indefinite. Applicants traverse this objection. Figures 8 and 27 illustrates that the insertion structure includes a shoulder construction from which the arms depend. The shoulder construction wraps around the overall electrical terminal on three of the four sides of the terminal. Accordingly, the shoulder construction from which the arms depend circumscribes or surrounds a majority of the terminal. (Note: Webster's Ninth New Collegiate Dictionary

defines circumscribe as: "to surround by a boundary.") Applicants respectfully submit that the known meaning of circumscribes is consonant with the claim recitation. Further, Applicants submit that the limitation is fully supported by the drawings, for example, in Figures 8 and 27. Applicants therefore respectfully request withdrawal of the objection to claims 4 and 9.

The Examiner also objected to claim 8 stating that the limitation of "separate" engagement surfaces is vague and indefinite. Applicants traverse this rejection, but have amended claim 8 to delete the term "separate." Applicants therefore respectfully request withdrawal of the objection to claim 8.

Rejections Under 35 U.S.C. §102

I. The Examiner rejected claims 1-7 under 35 U.S.C. §102(b) as being anticipated by Costello et al. (U.S. Patent 5,139,446). Applicants respectfully traverse this rejection.

Costello discloses a terminal member 40 including a first connecting portion 42, a second connecting portion 62 and an intermediate body portion 46 (FIG. 4). The intermediate body portion 46 includes a plate-like section 45 having a latch 54. A first pair of arms 56 and a second pair of arms 58 extend outwardly from the body portion 46. The first and second pairs of arms 56, 58 define push surfaces. In assembly, the terminal member 40 is inserted within a passageway of a housing (see FIG. 9) until each of the arms 56, 58, and the latch 54 contact push ledges 86, 88, 90 of the housing.

Claim 1 recites an electrical terminal including a terminal body and insertion structure. The insertion structure includes arms depending from the terminal body and extending in a direction generally parallel to a longitudinal axis of the terminal body.

Costello does not disclose arms that depend from a terminal body and extend in a direction generally parallel to a longitudinal axis of the terminal body. Rather, the arms 56, 58 of Costello extend outwardly in a direction perpendicular to a longitudinal axis of the terminal 40; not parallel.

The Examiner asserts that elements 50 and 52 of Costello are also arms. Element 50 is a side edge of the body portion 46, and element 52 is an outward edge of a plate-like section 45 of the body portion 46. It is unclear what structure is being characterized as the arms. To address the Examiner's remarks, it is assumed that the Examiner intended to

characterize the plate-like section 45 as arms. The plate-like section 45, however, does not depend from an insertion structure, as recited in claim 1. The plate-like section 45 also does not have push surfaces; rather, the push surfaces are defined by the arms 56, 58.

At least for these reasons, Applicants respectfully submit that independent claim 1, and dependent claims 2-7 are patentable.

II. The Examiner also rejected claims 1, 3-5, and 7 under 35 U.S.C. §102(b) as being anticipated by Travis (U.S. Patent 3,142,891). Applicants respectfully traverse this rejection.

Travis discloses a contact 10 having a tail section 14 and a head section 12. The head section 12 includes contact fingers 16, 18 interconnected by a U-shaped connecting arm 30.

Travis does not disclose arms depending from the terminal body and extending in a direction generally parallel to a longitudinal axis of the terminal body, as recited in claim 1. The Examiner asserts that the U-shaped connecting arm 30 is both the insertion structure of claim 1 and the arms. In particular, the Examiner has constructed non-disclosed, integral arm sections from the connecting arm 30. Applicants respectfully submit that this construction and the characterization of the U-shaped arm 30 as both the instruction structure and the arms is improper. Furthermore, Travis does not disclose "arm sections" that depend from the arm 30. Because the integral arm sections define the arm 30, the arm sections cannot depend therefrom.

At least because Travis does not disclose each and every element of claim 1, Applicants respectfully submit that claim 1, and dependent claims 3-5 and 7 are patentable.

III. The Examiner further rejected claims 8-11, 13 and 14 under 35 U.S.C. §102(b) as being anticipated by Travis (U.S. Patent 3,142,891). Applicants respectfully traverse this rejection, but have amended claim 8 to clarify the claimed features.

Claim 8 recites an electrical terminal including first, second, and third sections. The third section includes a contact surface oriented perpendicular to a longitudinal axis of the electrical terminal. The third section also includes at least three engagement surfaces oriented opposite the contact surfaces.

Travis does not disclose at least three engagement surfaces oriented opposite the contact surface. The contact surface is oriented perpendicular to the longitudinal axis of the electrical terminal. To be oriented opposite to the contact surface, the engagement surfaces must also be perpendicular to the longitudinal axis. The surfaces to which the Examiner refers as being engagement surfaces are parallel to the longitudinal axis, and are therefore not opposite the contact surface. In particular, the engagement surfaces defined by the arm 30 are oriented at right angles to the "contact surface" of the U-shaped arm 30, not opposite to the "contact surface."

At least for this reason, Applicants respectfully submit that independent claim 8, and dependent claims 9-11, 13, and 14 are patentable.

IV. The Examiner further rejected claims 8, 11, and 12 under 35 U.S.C. §102(b) as being anticipated by Ruehleman (U.S. Patent 3,321,848). Applicants respectfully traverse this rejection.

Ruehleman discloses a contact 200 having fingers 212 attached to, and tails 222 extending from, a base 213.

Claim 8 recites an electrical terminal having first, second, and third sections. The second section is configured for insertion into a through hole of a circuit board. The third section includes a contact surface, and at least three engagements surfaces configured to contact the circuit board to limit insertion of the electrical terminal within the through hole.

Ruehleman does not disclose a terminal having three engagement surfaces configured to contact the circuit board to limit insertion of the electrical terminal within a through hole. In particular, referring to FIG. 15 of Ruehleman, the contact 200 is not positioned within a through hole; rather, some circuit board structure is located between the tails 222. If the contact 200 were positioned in a through hole, one of the three engagement surfaces to which the Examiner refers (i.e. the center surface of the base 213 between the tails 222) would not contact the circuit board to limit insertion of the terminal within the through hole, as required by claim 8. Accordingly, Ruehleman does not disclose at least three engagements surfaces configured to contact the circuit board to limit insertion of the electrical terminal within a through hole.

At least for this reason, Applicants respectfully submit that independent claim 8, and dependent claims 11 and 12 are patentable.

SUMMARY

It is respectfully submitted that each of the presently pending claims (claims 1-16) is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby.

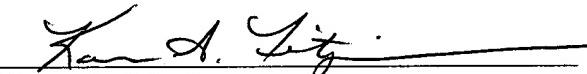
Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future.

Respectfully submitted,



MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: May 3, 2004


Karen A. Fitzsimmons
Reg. No. 50,470
KAF:cjm